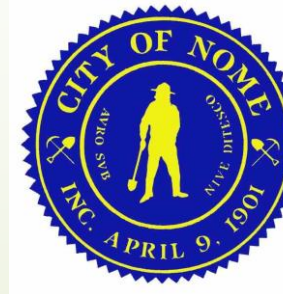
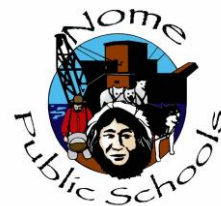
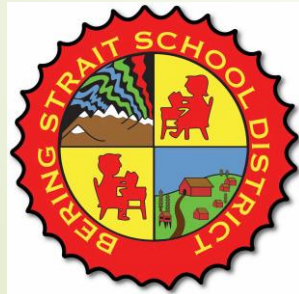




Status of Career and Technical Education (CTE) in the Bering Straits region: A Regional Training Center's Perspective

Douglas J. Walrath, PH.D.
NACTEC Director
www.nacteonline.org

House Education: April 7, 2021




NACTEC CTE Focus:



- 1. NACTEC delivers variable term (2-4 week intensive formats) residential CTE programs aligning with priority industries: Healthcare, Transportation, Construction, Hospitality & Tourism, Seafood Harvesting & Processing.
 - Northwest Area Health Education Center (NW AHEC)
 - DMV 3rd Party Examiner/Approved D.E. School
 - AVTEC Maritime: USCG certified training (certifications)
 - UAF-CTC: FAA approval Aviation Maintenance (dual credit)


CTE Training = Workforce Development Alignment



About ▾ Schedule Inspiration ▾ News ▾ Series ▾ Volunteer Contact Give

Arctic Deep Draft Port Project in Nome Authorized by Congress

By Catherine Rubano | January 12, 2021 | 3



APR 2021

CITY OF NOME STRATEGIC DEVELOPMENT PLAN
OUTER HARBOR DEVELOPMENT

AFTER YEARS OF WAITING, THE ARCTIC DEEP DRAFT PORT project in Nome was authorized by Congress on December 21st and is ready to move forward.

1. Dec. '20, Water Resource Development Act- \$389M Congress appropriation on a \$505M Arctic Deep Draft Port in Nome
2. Jan. '21 – Graphite Creek – highest grade large flake graphite deposit in U.S.

US government gives high priority status to Graphite One's Alaskan project

Northern Miner Staff | February 3, 2021 | 12:02 pm Exploration USA Graphite



Drill platform at Graphite One's Graphite Creek project in western Alaska. Credit: Graphite One

SIGN UP FOR THE MINING
NEWS DIGEST

Sign Up

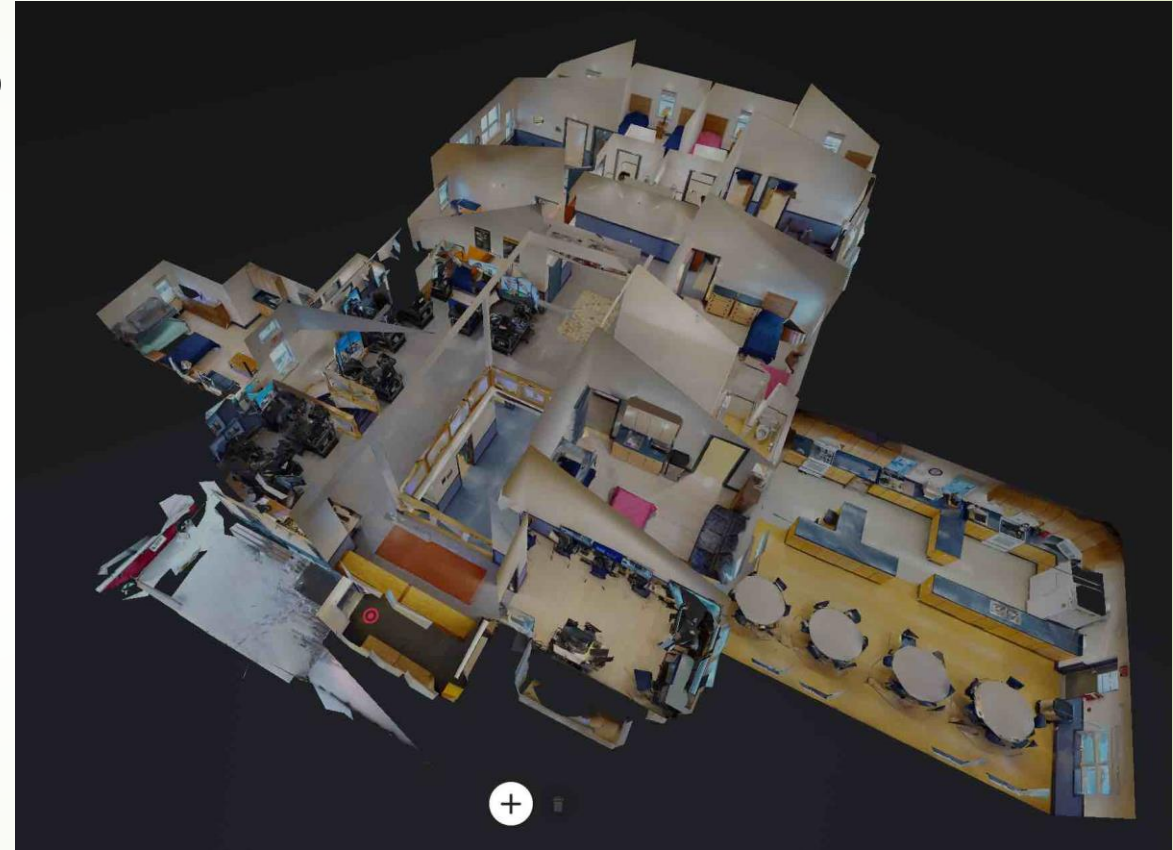
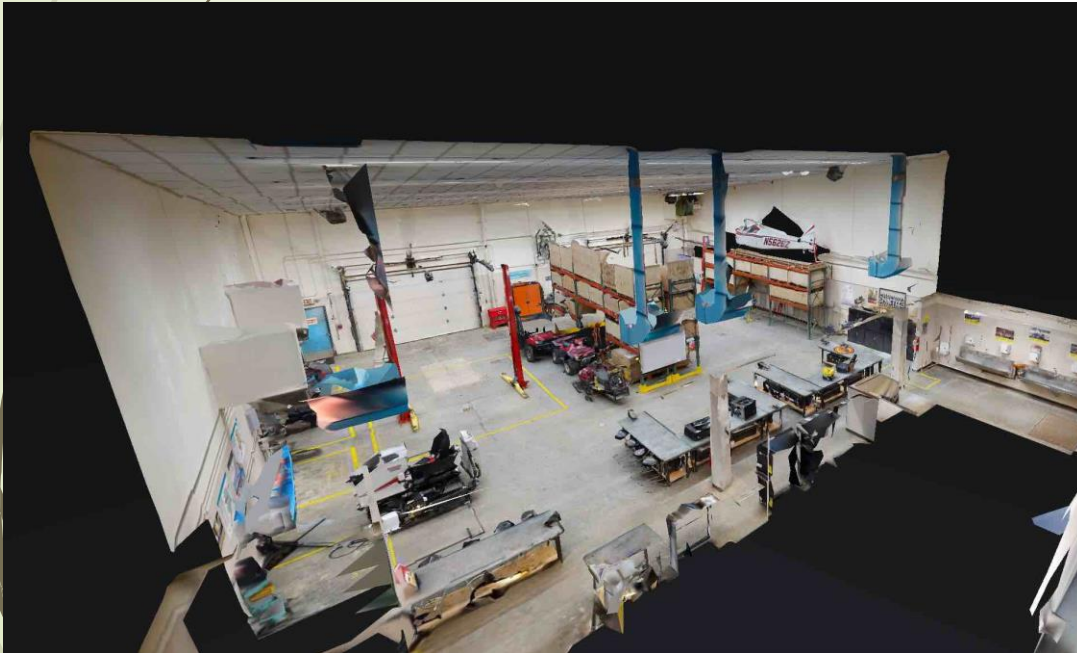
COVID-impacted Environment

- 1. Closed by COVID: FY21 residential programming for BSSD students
- 2. Shift to semester-based CTE for Nome Public Schools
- 3. Limited adult Driver Education training



Distance Delivery CTE – Virtual Environment

- 3D scans of NACTEC House and Auto Shop facilities
 - Information rich tags embedded
 - www.nacteonline.org



Distance Delivery CTE – Courses

- Small Engine Repair – 29 videos
- Intro to Aviation – 15 videos
- Intro to Healthcare
- Heavy Equipment Operator
- Flux Core Arc Welding
- Potential Statewide Delivery w/ DEED



Distance Delivery CTE – Aviation

- Basic Aviation Training Devices at all sites
 - GoogleDoc Flight logs – document interest
- Intro to Aviation course developed
- Aviation Ground School
- Aviation Maintenance/Small Engine Repair



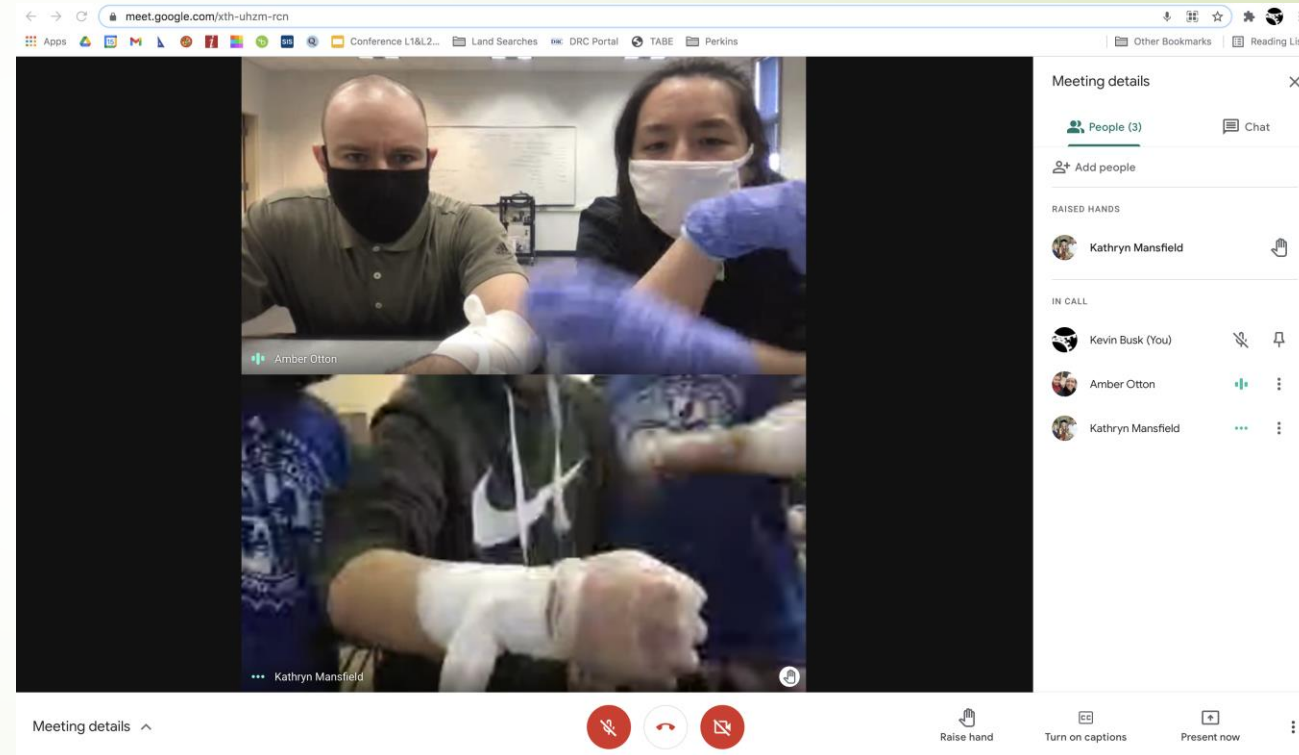
Aviation Maintenance



Aviation Ground School

Distance Delivery CTE – Healthcare

- HLTH 105 – Intro to Health
- QPR – Suicide Prevention
- Jr. High Career Exploration
 - Bandaging Workshops

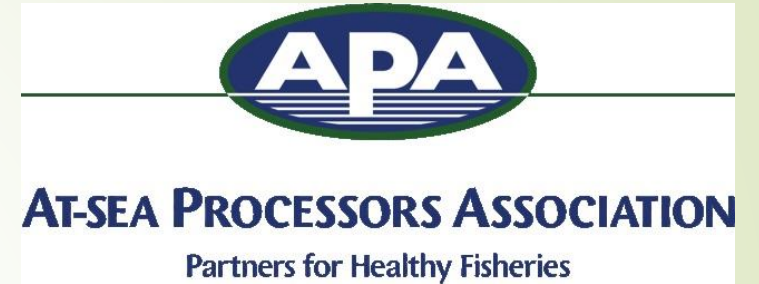
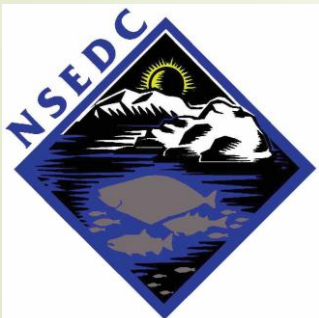


NACTEC Legislative Emphasis



- TVEP Reauthorization (HB100)
- DEED Residential Stipends
- Alaska Education Tax Credit (ETC)

Fiscal Year	ETC Total	Budget Total	% ETC
FY10	400000	1300000	31%
FY11	200000	1320000	15%
FY12	550000	1390000	40%
FY13	200000	1240000	16%
FY14	300000	1170000	26%
FY15	405000	1760000	24%
FY16	595000	1700000	36%
FY17	506000	1650000	30%
FY18	542000	1690000	29%
FY19	509000	1860000	30%
FY20	280000	1670000	16%
FY21	120000	1700000	7%



Alaska Career & Technical Education Overview

Alaska Department of Education & Early Development

Deborah Riddle, Division Operations Manager, Innovation and Education Excellence

Brad Billings, Administrator, Career and Technical Education



House Education Committee
April 7, 2021

AN EXCELLENT EDUCATION FOR EVERY STUDENT EVERY DAY



Our Mission, Vision, and Purpose

OUR MISSION

- › An excellent education for every student every day.

OUR VISION

- › All students will succeed in their education and work, shape worthwhile and satisfying lives for themselves, exemplify the best values of society, and be effective in improving the character and quality of the world about them.
 - Alaska Statute 14.03.015

OUR PURPOSE

- › DEED exists to provide **information**, **resources**, and **leadership** to support an excellent education for every student every day.

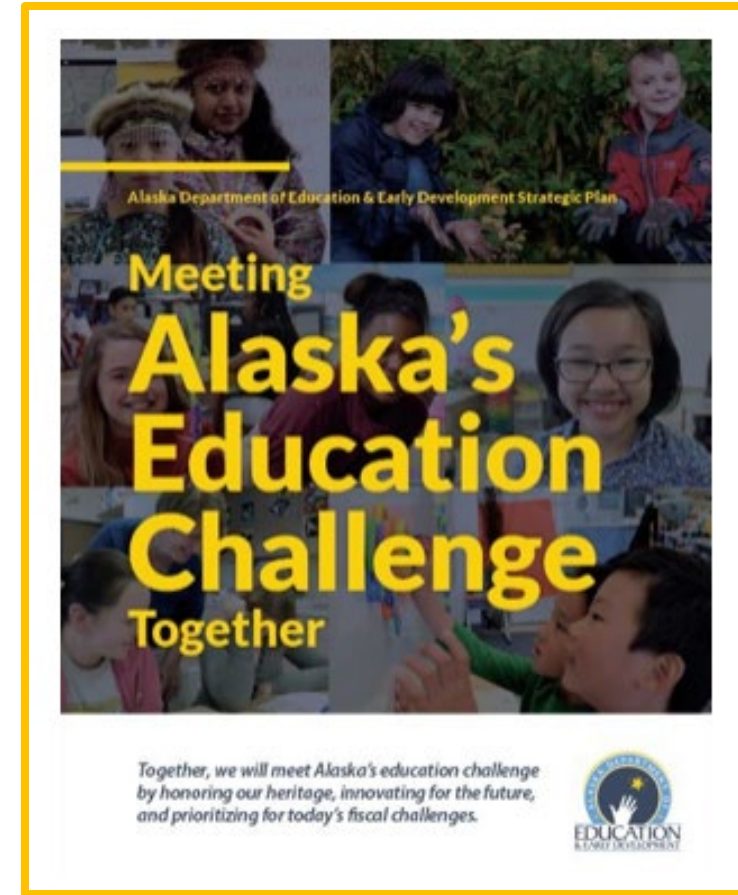




Our Strategic Priorities: Alaska's Education Challenge

Five Shared Priorities:

1. Support all students to read at grade level by the end of third grade
2. Increase career, technical, and culturally relevant education to meet student and workforce needs
3. Close the achievement gap by ensuring equitable educational rigor and resources
4. Prepare, attract, and retain effective education professionals
5. Improve the safety and well-being of students through school partnerships with families, communities, and tribes



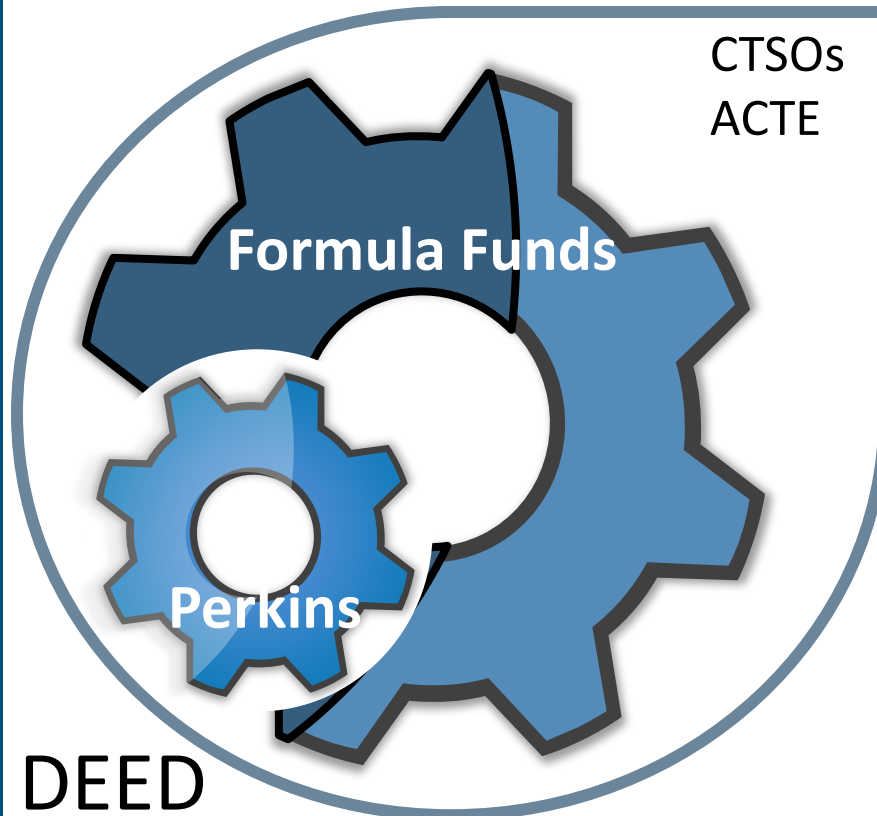
education.alaska.gov/akedchallenge



Post-Secondary Institutions



*Dual Credit
Industry Recognized
Certificates*



*Work-
Based
Learning*

Employers
and
Industry



**Living
Wage
Jobs**



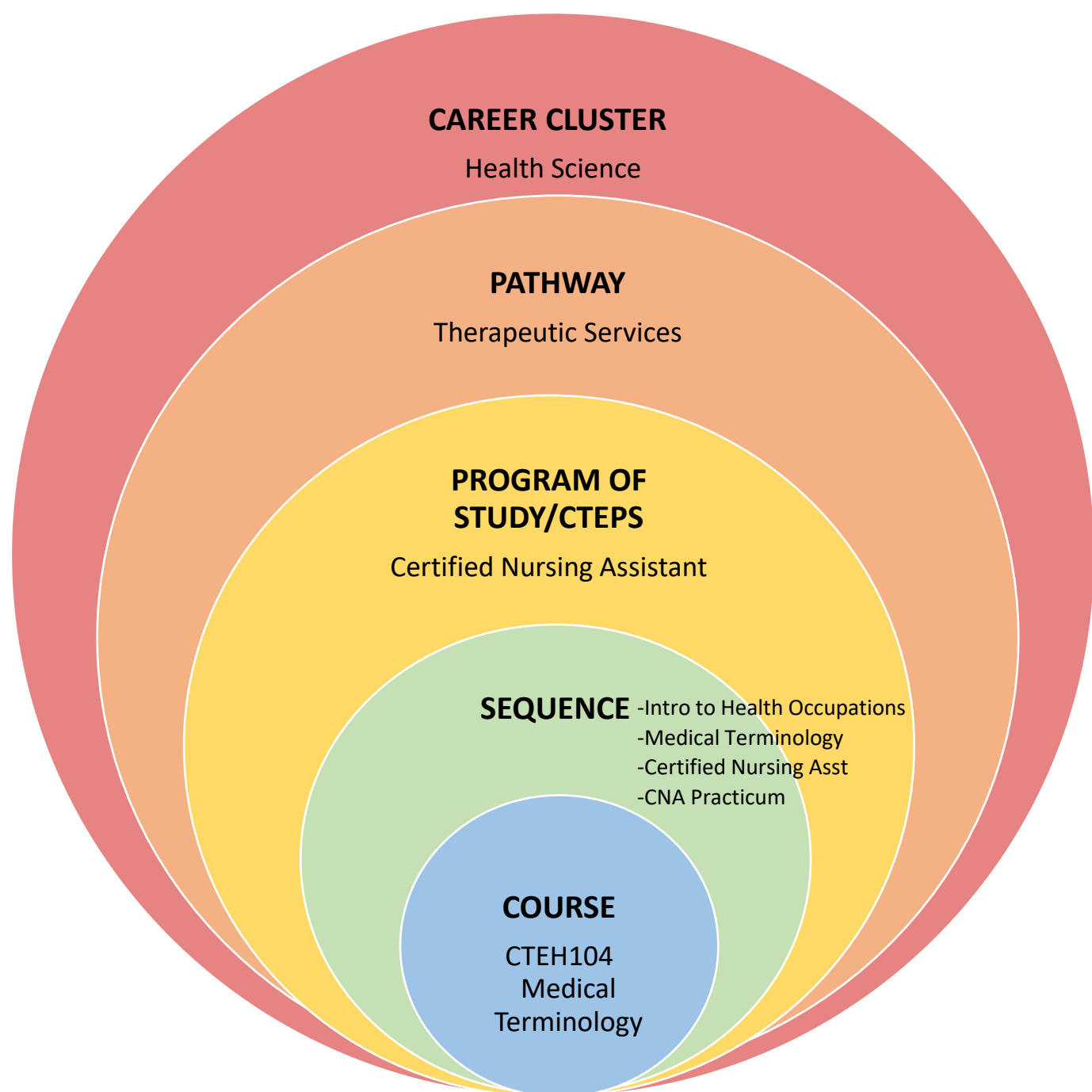
Secondary CTE Resource Ecosystem

	FY2021
› Alaska's Carl Perkins federal funds	\$5.1M
› CTE factor (x1.015) within the foundation formula	\$17.6M
› Private/government grants for secondary schools	
› Post-secondary government partners, universities, and training institutions	
› Investment of employers/industry in workforce development and training of employees	



Career and Technical Education

Cluster to Course





High Quality CTE Program of Study

- › Responsive to demand
- › Student career development
- › Multiple “stacked” courses
- › Academic, employability, and technical standards
- › Post-secondary recognized credentials or credit
- › Work-based learning

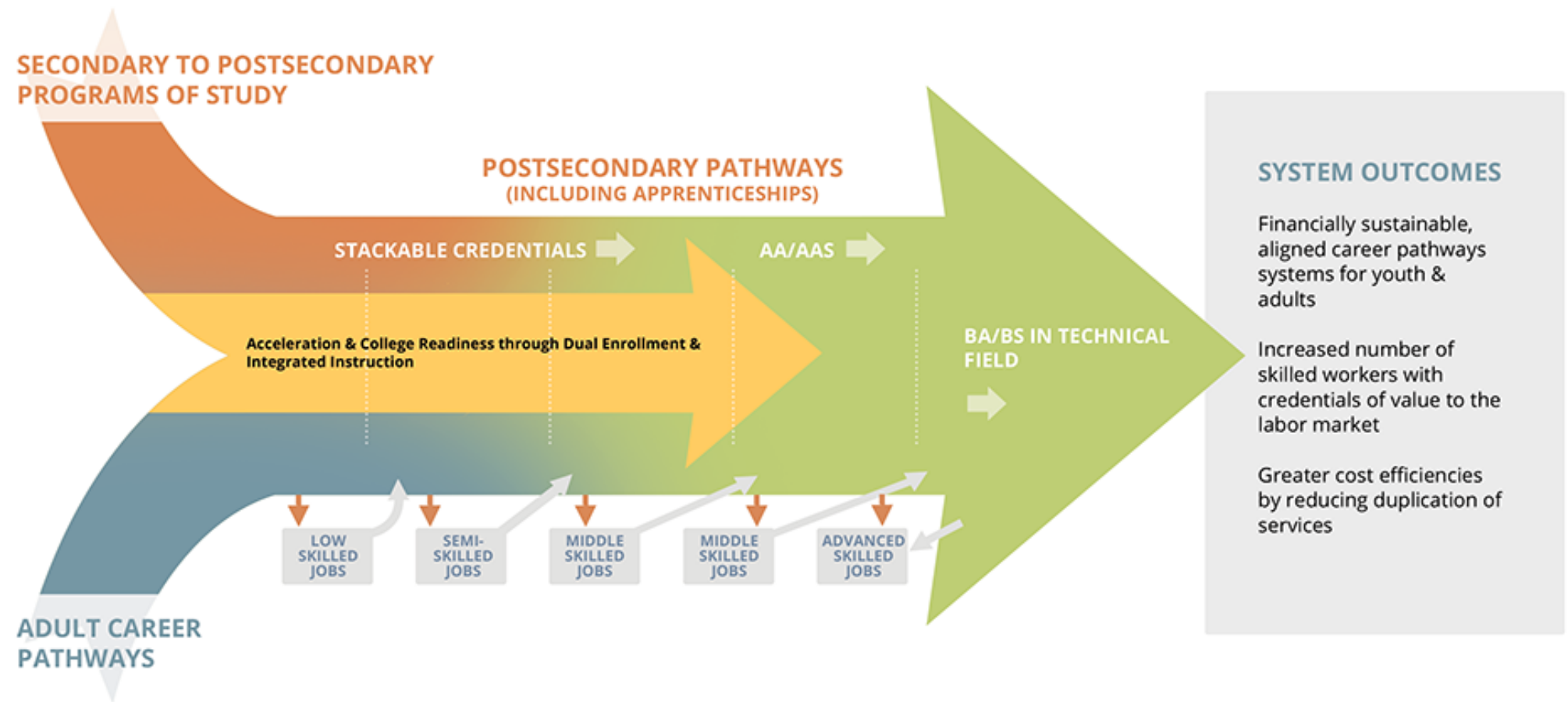


CTE Partnerships

- › Consultation of local/regional Advisory Committee(s)
- › Alaska TVEP training institutions
- › University of Alaska Transition Coalition – workforce development
- › Local arrangements with business, industry, trade unions, etc.



Integrated Career Pathways Model





COVID-19 Flexibility and Innovation

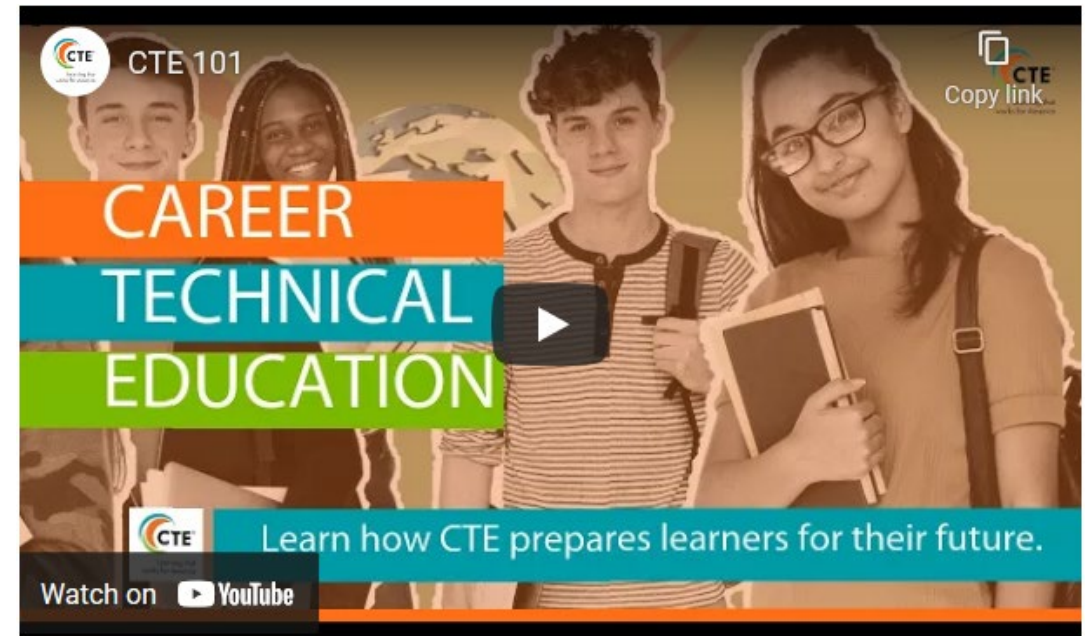
- › Carry forward of federal CTE funds
- › Spring 2020 weekly statewide collaboration calls
- › Annual statewide conferences delivered virtually
- › School district and partner innovation



CTE Resources

education.alaska.gov/cte

- › [Alaska Work-Based Learning Guide](#)
- › [Alaska CTE Perkins State Plan](#)
- › [Career Clusters](#)
- ›and more!





Contact Information

› Deborah Riddle, Division Operations Manager

deborah.riddle@alaska.gov

(907) 465-2892

› Brad Billings, Administrator, Career and Technical Education

brad.billings@alaska.gov

(907) 465-8720

Alaska Association for Career and Technical Education

Teri Cothren
President

House Education Committee
April 7, 2021



Our Mission & Vision

MISSION

Provide leadership to ensure all students have access to quality Career & Technical Education.

VISION

We are the network that aligns education and industry to develop a strong Alaska workforce.



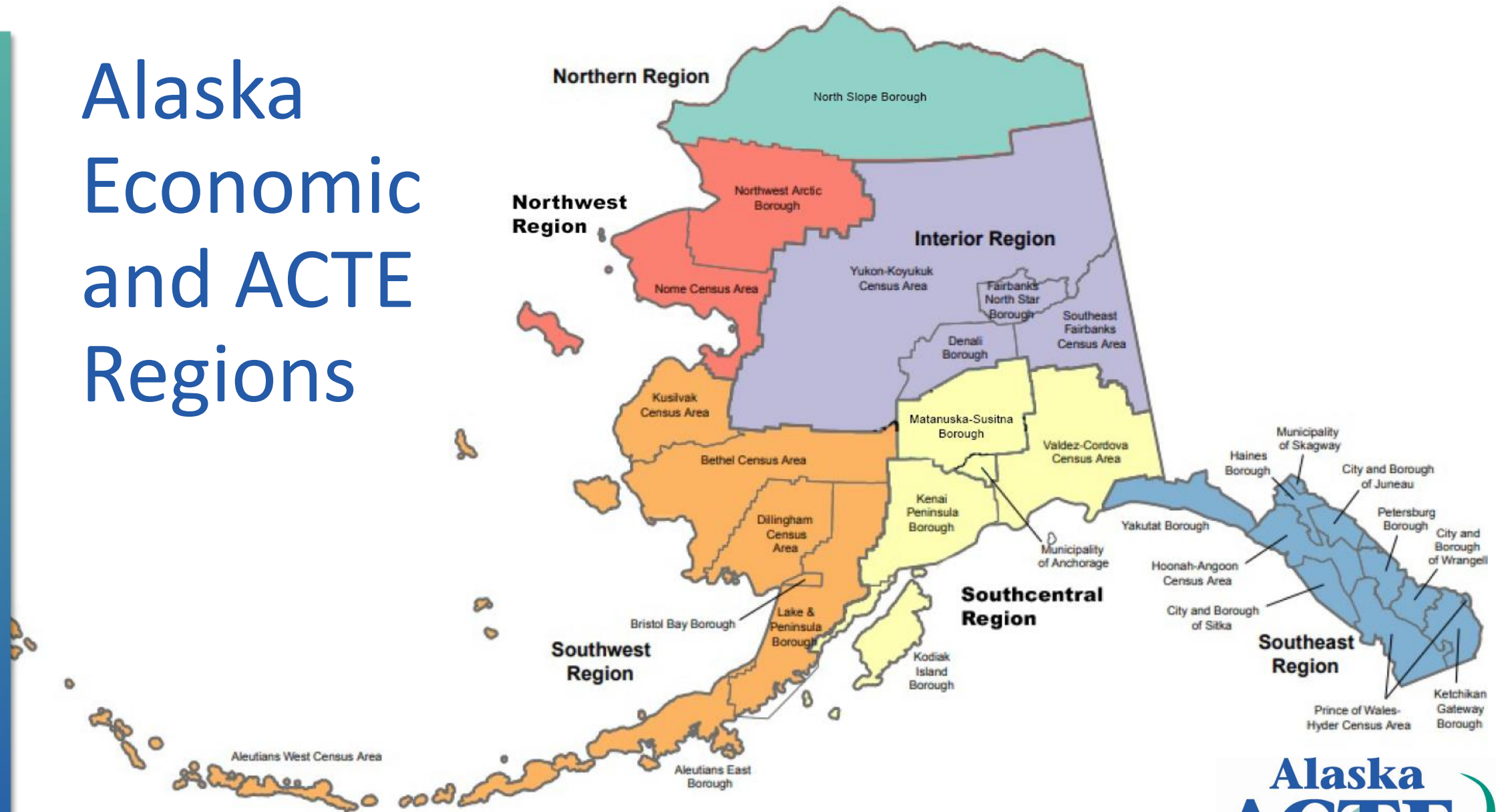
Board of Directors

Past President - Missy Frazee
President - Teri Cothren
President Elect - Beki Toussaint
Treasurer - Emily DaLuz
Secretary - Barbara Wadlinger
DEED Ex Officio - Felicia Swanson

Interior Representative - Andrea Wade
Northern Representative - Ronnie Hawley
Northwest Representative - Brett Pietila
Southwest Representative - Colin Stewart
Southcentral Representative - Tyler Gilligan
Southeast Representative - Clint McClennan
Postsecondary Rep - Elizabeth Hardie



Alaska Economic and ACTE Regions



National Affiliation & Member Benefits

AK ACTE Membership Benefits

Engage.
Collaborate.
Learn.

Networking and
Professional Development
a with CTE teachers in
Alaska and the nation

Reduced conference
registration fees for local and
national ACTE conferences

Discounted
CTE professional
development through the
AK CTE Learn portal

Subscription to
Techniques magazine
featuring article
on CTE trends,
case studies, and
innovations



Access to AK ACTE
Clearinghouse with CTE
lessons & projects

Alaska
ACTE



National benefits

- Reduced conference rates
- Subscription to *Techniques*
- CTE Learn portal
- Regional award opportunities

State benefits

- Newsletters
- Regional outreach
- Website and social media presence
- Annual conference
- CTE awards
- Advocacy



Alaska ACTE Clearinghouse

SHARE YOUR CTE RESOURCES with Teachers and Administrators Across Alaska

Alaska ACTE is making it easy to share and access career and technical education (CTE) instructional, general safety, leadership, professional development, Career and Technical Student Organizations, and best practices resources. These resources will be hosted in the Alaska ACTE Clearinghouse and made publicly available.

We need your help to pack the clearinghouse with valuable content! By sharing content, together we can enhance CTE delivery and inspire student engagement across the state. This collaborative effort will result in a robust database of CTE resources.



- Strengthens onboarding
- Provides access to quality CTE resources
- Leverages existing resources
- Enhances curriculum alignment
- Builds a collaborative community



HOW TO SUBMIT

Submitting content is quick and easy. Just follow the instructions at akacteclearinghouse.com

If you have any questions, please contact us at clearinghouse@alaskaacte.org.



Professional Development Conference



- Professional platform for CTE
- Networking
- Keynote speakers
- Hands-on training and breakout sessions
- Vendor fair
- Continuing education



Awards – Celebrating Excellence in CTE



CTE Teacher of the Year

New CTE Teacher of the Year

CTE Leadership Award

Community Service Award

Career Guidance Award

Innovative Program Award



2020 Community Service Award



Bering Strait School District
CTE Program

Manufacturing PPE



Value of CTE

WHO ARE ALASKA'S CTE STUDENTS?

2018-2019 STATEWIDE AVERAGES



43%

Of CTE participants are female

41% Are economically disadvantaged

31% Are NTO*

14% Are disabled

8.7% Are Migrant

6.5% Are EL†

* Nontraditional Occupations
† English Learners

DEMOGRAPHICS



CTE IN ALASKA



95% GRADUATION

CTE concentrators† are 17% more likely to graduate than their non-CTE counterparts.

† Students with ≥ 2.0 HS CTE credits



17.5%

Alaskan graduates are CTE concentrators



30%

Of students took at least one CTE class in high school

73%

Of CTE concentrators go on to postsecondary, adv. training, the military, or employment.

CTE in Alaska

February 2021



51% of jobs in Alaska require skills training—more education than high school but less than a four-year degree.



Career and technical education (CTE) programs can develop this workforce, particularly in Alaska's key industries, like:

- oil and gas
- health care
- metal ore mining
- construction

91% of Alaska secondary CTE concentrators met performance goals for technical skills in 2018.

Many students are already enrolled in CTE in Alaska, developing technical, academic and employability skills and engaging in work-based experiences with industry partners. During the 2018-19 school year, Alaska had:

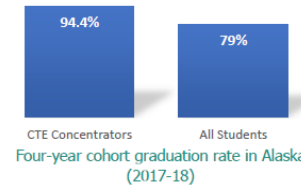
12,435

secondary CTE participants

5,245

postsecondary CTE participants

These youth and adult learners in CTE programs are more engaged, graduate high school at higher rates, earn industry-recognized credentials, and have rewarding and family-sustaining careers.



2,097

postsecondary credentials earned by CTE students in Alaska (2016-17)



More investment is needed to scale CTE programs across Alaska to ensure that all learners, including historically underserved learners, have access to high-quality CTE programs in high-skill, high-wage and in-demand career fields.

CTE: Good for Students, Good for Business, Good for Communities!

FY 20 Federal Perkins CTE Funding for Alaska

\$5,135,742

For more information visit www.acteonline.org, education.alaska.gov/cte and www.publicpolicy@acteonline.org.





Thank you

Teri Cothren


President

Alaska Association for Career and Technical Education

info@alaskaacte.org

<http://www.alaskaacte.org>





BRISTOL BAY REGIONAL CAREER AND TECHNICAL EDUCATION



BRISTOL BAY REGIONAL CAREER AND TECHNICAL EDUCATION

BUILDING REGIONAL WORKFORCE FROM THE GROUND UP

BBRCTE was formed as a way to provide career and technical learning opportunities and exposure to different pathways to students in 21 communities in the Bristol Bay Region

What is BBRCTE?

21 SCHOOLS

Offers courses and programs to students from a variety of school and community sizes

INDUSTRY EXPERTS

We work with a wide range of instructors and guest instructors who bring their expertise to share with students

COMMUNITY

Takes place within the two main hubs, Dillingham and Naknek/King Salmon during four separate week long phases

REGIONAL CAREER FOCUS

Provides coursework and programs applicable to job and career opportunities in the region and state

SOME CHANGES TO PROGRAMMING 2020-2021

SHIFTING PROGRAMMING

Distance and
blended courses

Small Engines
Maritime Electrical
Allied Health
Dual Credit
Aviation

REMO VIRTUAL CAREER FAIR

Developed in
Partnership with
CDQ

40 tables were
staffed with local,
regional, state, and
national employers
and recruiters
Around 200
participants from all
across the region

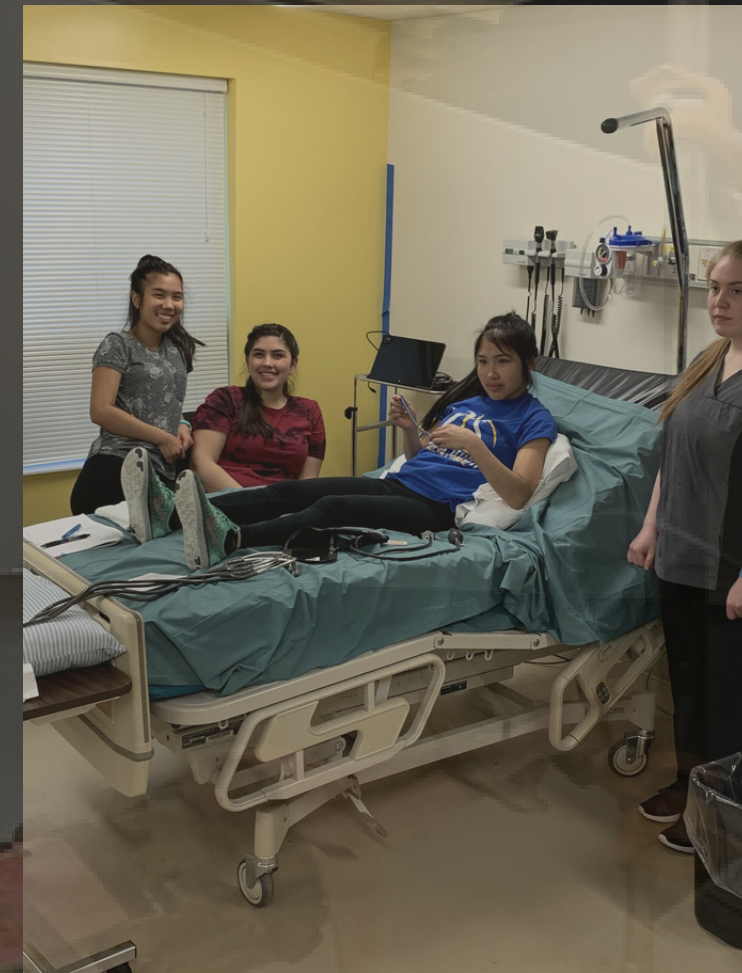
2021-2022 PROGRAMS

Welding and Fabrication-Skiff Build Academy
Maritime-Captain's License-AVTEC
Commercial Fishing-
 Marine propulsion, RSW, 12v Electric, Maritime
 Hydraulics-Alaska Sea Grant/BBC
Allied Health-CNA-AHEC
Sustainable Energy-BBC
Culinary Arts
Construction Trades-NCCER
Business and Entrepreneurship-Alaska Business Week
Aviation
Unmanned Aircrafts (drones)
Natural Resource Management-Katmai
Public Safety
Leadership and Government
Internship and Work Study Program (in planning Phases)



These Programs are Offered in Collaboration With:

- BBEDC
- BBNC
- Peak Oilfield
- Alaska State Department of Education
- BBBSD, LPSD, SWRSD, DCSD
- UAF Bristol Bay Campus
- Lake and Peninsula Borough
- AVTEC
- AHEC
- Honda



A black and white photograph of four students (three girls and one boy) standing in a room, holding a large menu for the 'Morning Catch' program. The student on the far left is wearing a t-shirt that says 'SOUTHWEST REGIONAL CONFERENCE 2019 CROSS COUNTRY Invitational'. The menu they are holding lists items like 'Super Salad' for \$6.99 and 'Fruit and Yogurt Parfait' for \$5.99. The background shows a classroom or cafeteria setting with tables and chairs.

BRISTOL BAY REGIONAL CAREER AND TECHNICAL EDUCATION PROGRAM

WWW.BBRCTE.ORG

PHONE
(907)209-9833

EMAIL
info@bbrcte.org

Alaska House Education Meeting

CTE Report from the Lower
Kuskokwim School district



Introduction to LKSD CTE Programs

- LKSD serves 27 different school sites in 22 communities
- Largest rural district in Alaska
- Village schools are heavily supported by the District Office out of Bethel



LKSD Site Populations

Atmautluak	Pop: 277 Students: 111	Dual	Kasigluk (Akiuk)	Pop: 569 Students: 124	Dual	Newtok-Metarvik	Pop: 354 Students: 140	Dual
Bethel (Ayaprun)	Pop: 6363 Students: 170	Dual	Kasigluk (Akula)	Pop: 569 Students: 115	Dual	Nightmute	Pop: 293 Students: 100	Dual
Bethel (KLA)	Pop: 6363 Students: 54	EFL	Kipnuk	Pop: 639 Students: 209	Dual	Nunapitchuk	Pop: 518 Students: 207	EFL
Bethel (BRHS)	Pop: 6363 Students: 508	EFL	Kongiganak	Pop: 439 Students: 164	Dual	Oscarville	Pop: 70 Students: 13	Dual
Bethel (Gladys Jung)	Pop: 6363 Students: 355	EFL	Kwethluk	Pop: 753 Students: 262	Dual	Platinum	Pop: 64 Students: 13	EFL
Bethel (ME School)	Pop: 6363 Students: 342	EFL	Kwigillingok	Pop: 321 Students: 141	Dual	Quinhagak	Pop: 699 Students: 225	Dual
Chefornak	Pop: 418 Students: 159	Dual	Mekoryuk	Pop: 200 Students: 44	Dual	Toksook Bay	Pop: 617 Students: 193	Dual
Eek	Pop: 296 Students: 125	Dual	Napakiak	Pop: 370 Students: 95	EFL	Tuntutuliak	Pop: 408 Students: 145	Dual
Goodnews Bay	Pop: 254 Students: 73	EFL	Napaskiak	Pop: 423 Students: 156	Dual	Tununak	Pop: 327 Students: 111	Dual

DUAL: BI-LITERACY

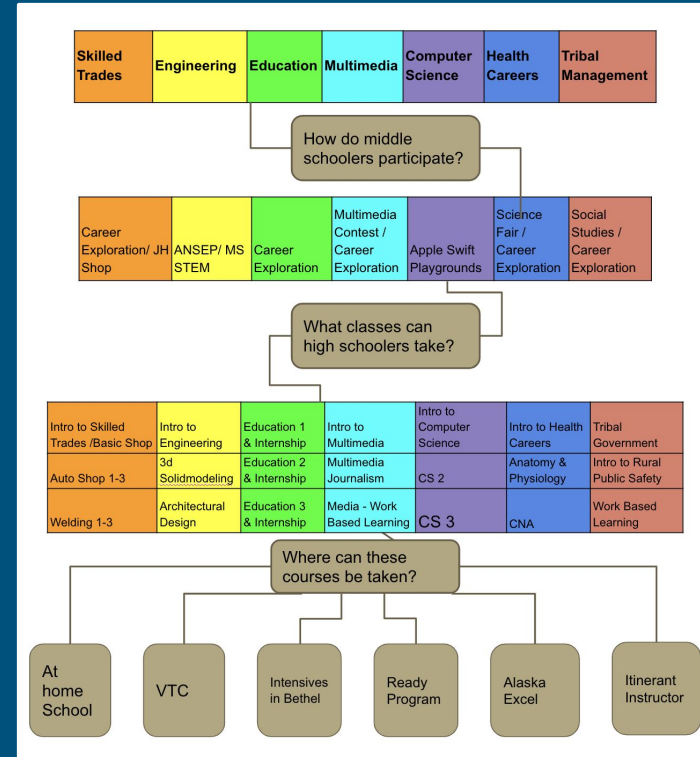
EFL: ENGLISH FIRST LANGUAGE



CTE Programs Overview

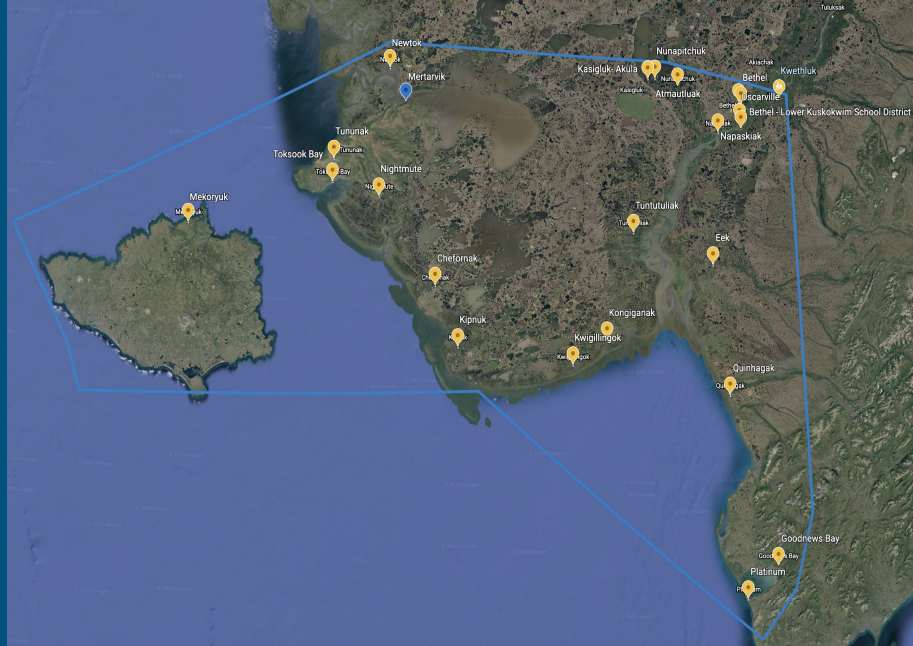
Career and Technical Programs offered in a variety of formats

- Traditional in person at home school
- Distance delivery via Zoom
- Variable length boarding program
- Itinerant instructor
- Third party educational opportunities
- Homegrown instructors



Challenges with and prior to COVID-19

- CTE instructors are very hard to find / keep / train
- Village schools typically require travel to access CTE programs
- Revolving administration and priorities
- COVID-19 shut down school as we know it for 1 year
- Infrastructure does not meet needs



Success with Work Based Learning

- Continued Partnership with YKHC
- Students placed in dental and optometry
- Future openings with additional departments as student pool increases



Things learned and strengths moving forward

- The Pandemic highlighted the need for reliable connectivity at home for our students.
 - Building partnerships with tribal entities to help address funding challenges
- CTE networking across the state has never been stronger
- Statewide development of CTE courses
- CTE clearing house for statewide course sharing
- Instructors have had to take a more thoughtful approach to detailed planning



32nd Alaska State Legislature

Kenai Peninsula Borough School District

Matt Widaman- KPBSD CTE Specialist



April 2021



Microcosm of Alaska-

- # COVID Calendar

Mid- January – back in school



Response to COVID

CTE staff protocols

Student PPE and Equipment Handling

- Hands on courses- Online Learning- Challenges
 - Welding
 - Construction
 - Culinary Arts
 - Decrease in 30% of CTE enrollment- district wide

Kits, supplies and materials to students

Mitigation Plan- CTE courses-
SOHI, KCHS and Nikiski

35% increase in work experience students

Kenai Peninsula College/UAA – Courses



Career and Technical Student Organization (CTSO)



Region and State events cancelled past two years



Emanuela Pokryfki- District Ed Rising Advisor



Seward High Chapter- Iron Mountain



KPBSD Career Pathways

- Health Science
- Business, Management, & Administration
- Marketing, Sales, & Service
- Finance
- Information Technology (IT)
- Science, Technology, Engineering, & Mathematics (STEM)
- Manufacturing, Construction
- Transportation, Distribution, & Logistics

Identify CTE outcomes for Alaska and Lower 48- Questions

What preparation and skills are needed for the workplace and post-secondary education or training? Employability Skills?

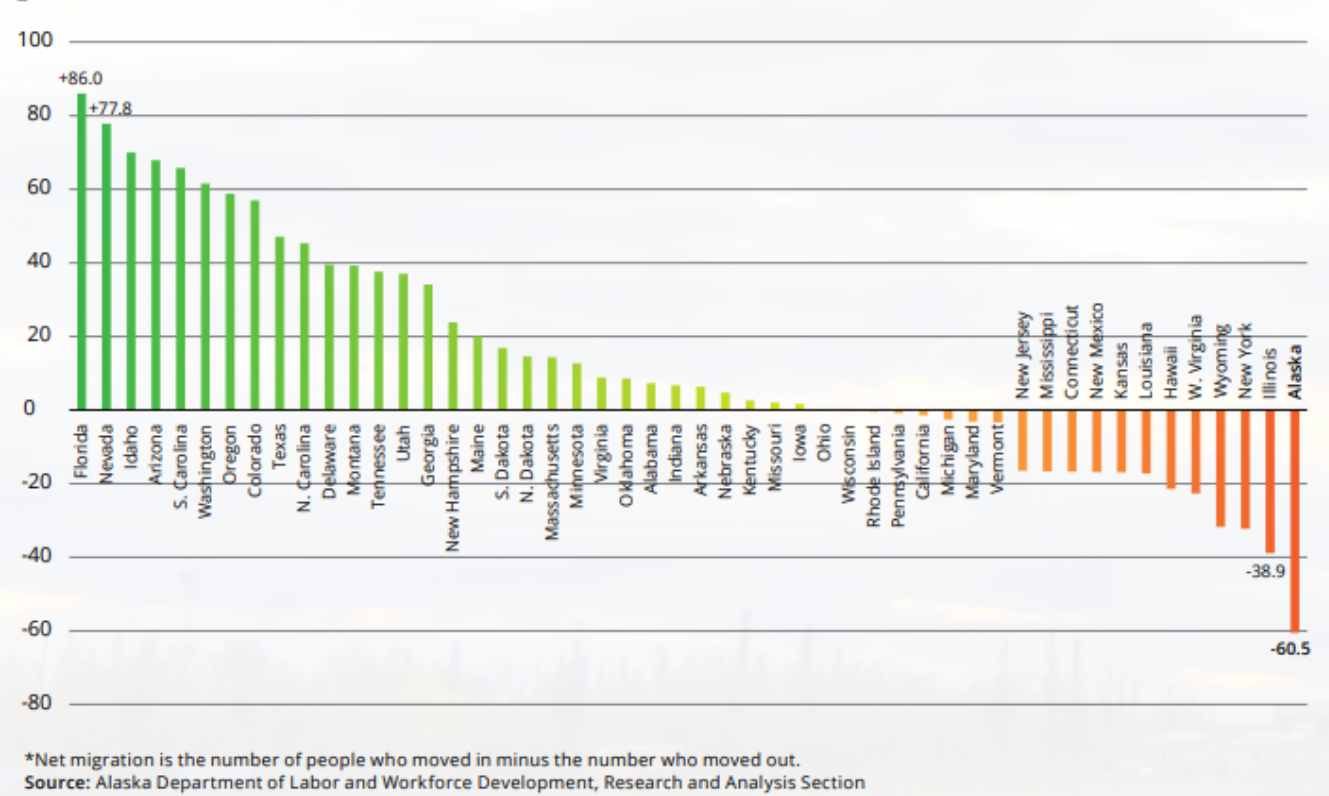
Other ways to best prepare our students for workplace or career readiness? Industry credentials?

What courses or pathways should be a focus? 5 years?

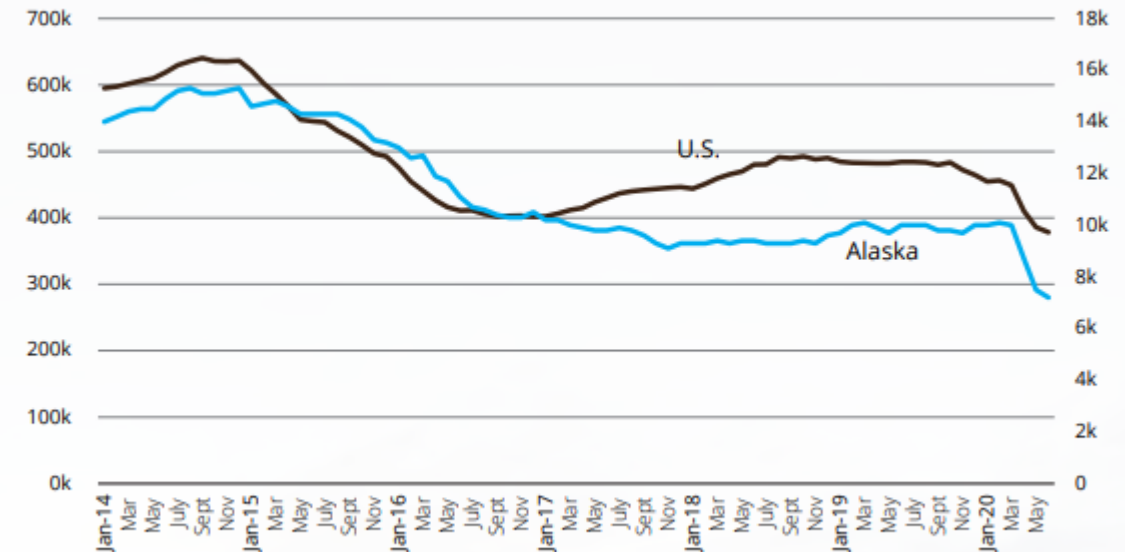
Economic Trends

Since 1990, the Kenai Peninsula Borough's net flow has been mostly positive, driven by young families and older adults. The borough tends to lose people in their teens and 20s, then gain people in their 30s plus their kids. Kenai's large net gain of people in their 50s is unusual for Alaska; before 2010, the area even gained migrants 60 and older.

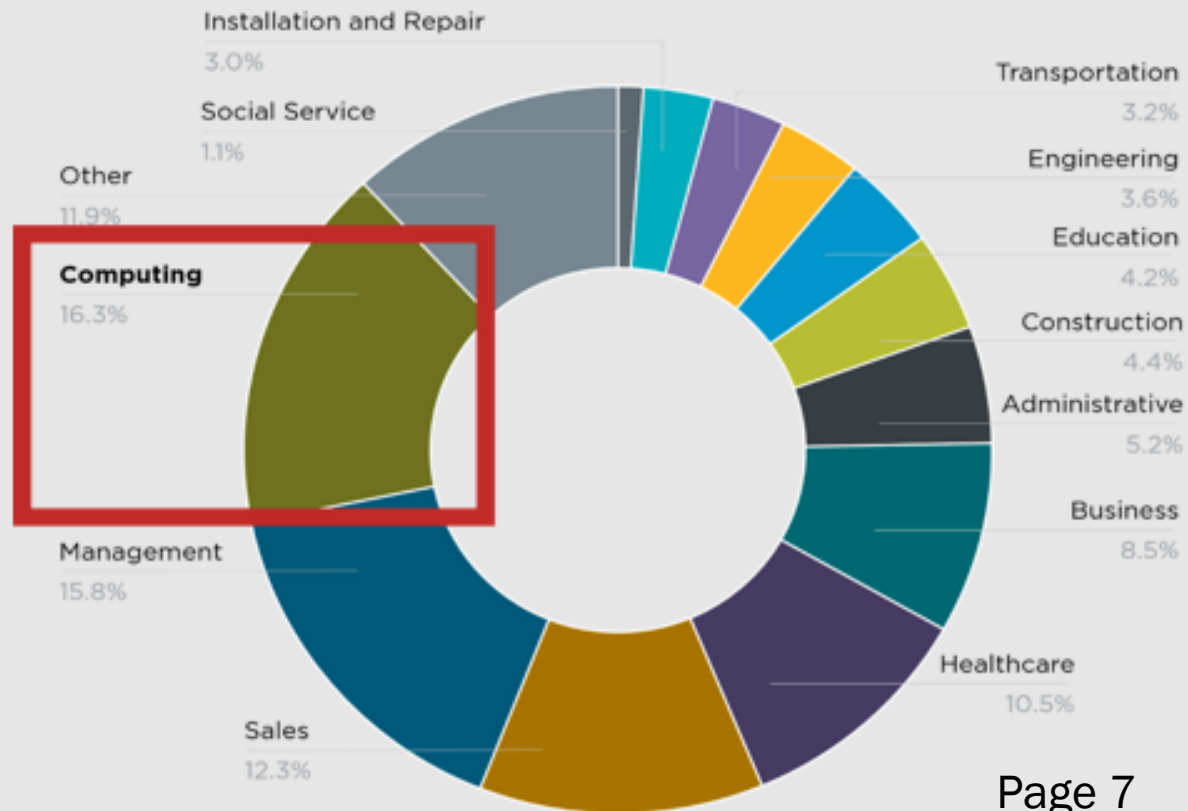
Net migration* per 1,000 in population, 2014 to 2019 by state



National and Alaska oil and gas employment, 2014 to 2019



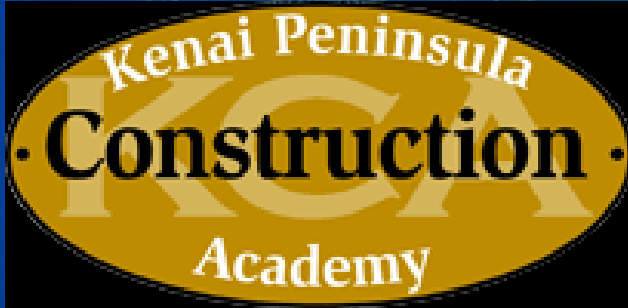
Computing jobs are the #1 source of new wages in the United States



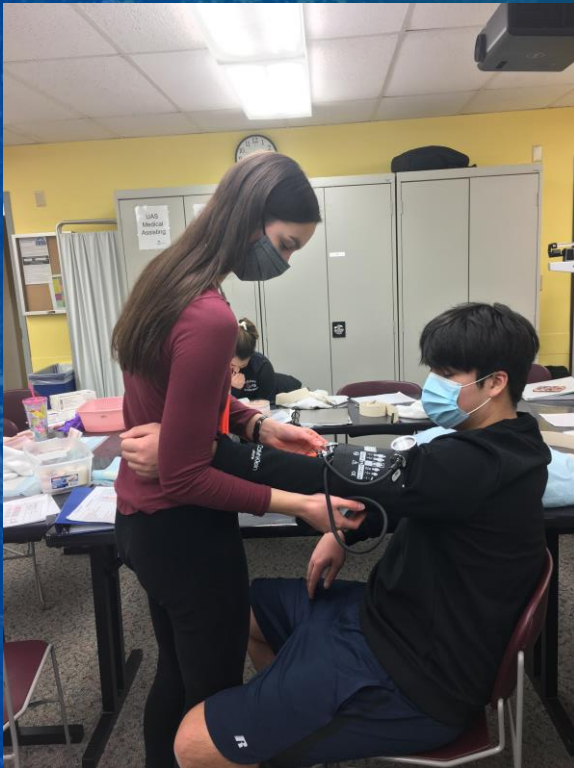
500,000 current openings:
These jobs are in **every** industry and **every** state, and they're projected to grow at twice the rate of all other jobs.

Kenai Peninsula Construction Academy

Bob Hammer- Director



KPBSD Awarded a Grant \$20,000
4 classes- Winter of 2021-2022
Electrical, Plumbing, Welding, Construction



➤ Summer Opportunities-

Kenai Peninsula College- Emergency Trauma Technician

Kenai Central High School- Construction Academies-

Alaska Petroleum Academies(2)- KPEDD

Certified Nursing Assistant- Mtn. Haven/Providence- Seward Area

Microsoft Certification Online Course- KPBSD

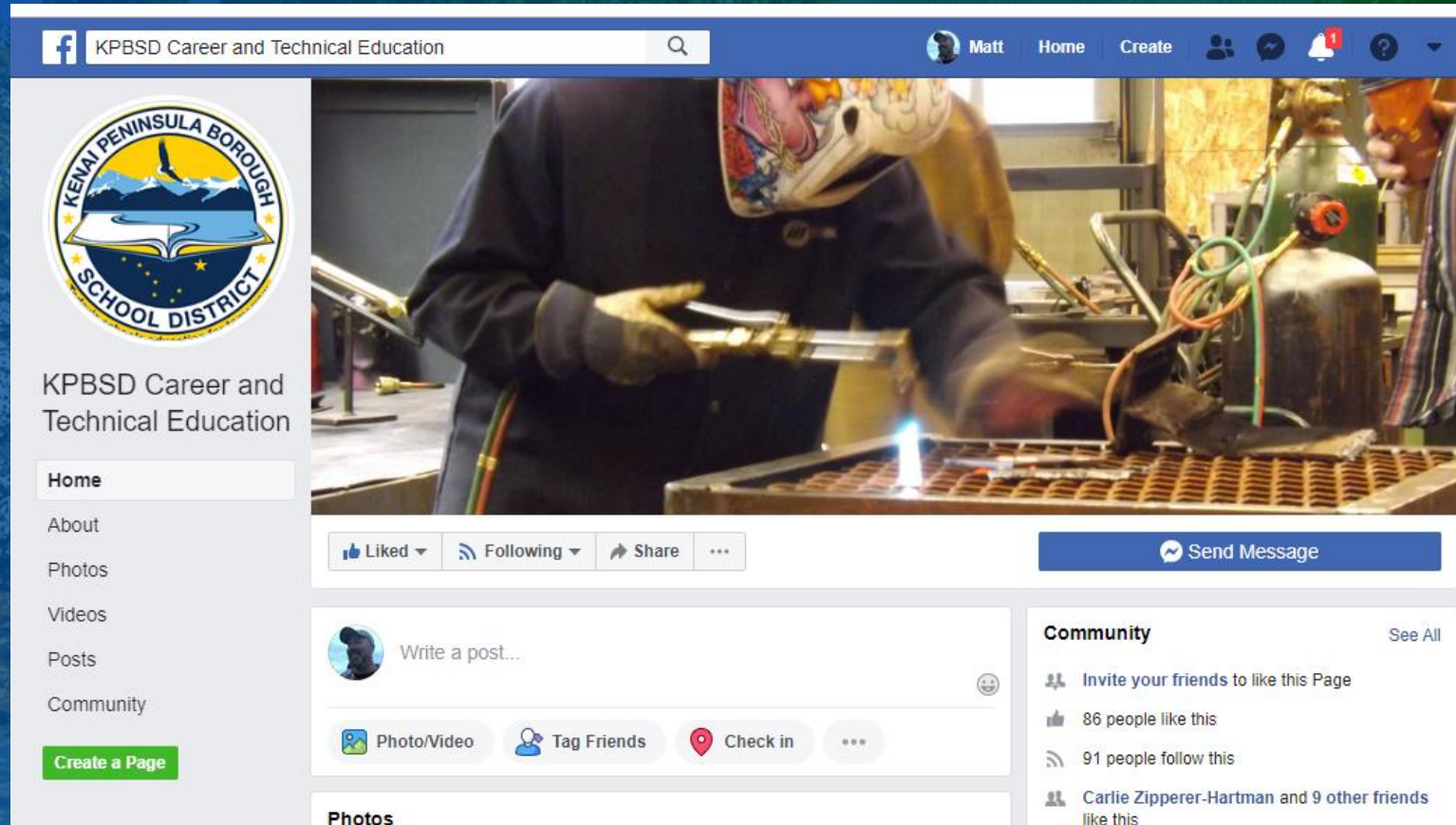
Workplace and Internship Readiness Online Course- KPBSD



Thank You

<https://www.facebook.com/KPBSDCareerTechnicalEducation>

On behalf of KPBSD and the CTE Programs





**A great choice for
Alaskans...**

House Education Committee
April 7, 2021

AVTEC at a glance...

- A division of the Alaska Department of Labor and Workforce Development.
- Postsecondary vocational technical training center since 1969
- Nationally accredited through the Council on Occupational Education



Our Mission...

AVTEC delivers flexible, accessible, and affordable workforce training that is responsive to the dynamic needs of business and industry and serves Alaska's diverse communities.





TRAINING PROGRAMS



Flexible, accessible, & affordable training...

- Occupational Programs provide opportunities for student to gain technical and employability skills to gain employment in entry level positions; trade specific for 90-180 days of training.
- Job upgrade for incumbent workers aimed to increase upward mobility; customized training based on employer and employee needs.
- Continuing Education to maintain employed status through job specific skills training to increase productivity; customized training based on employer and employee needs.

Training at AVTEC is different...

- CLOCK HOURS NOT CREDIT HOURS:
 - Workplace simulation in chosen career field; over 1,000 hours of training in 38 weeks.
- DEMONSTRATED COMPETENCY:
 - No grades, 90% demonstrated mastery of skills and earned industry credentials.



Training at AVTEC is different...

- TECHNICAL & EMPLOYABILITY SKILLS EMBEDDED:
 - Technical and employability skills such as job search, interviewing skills and resume writing part of the training.
- JOB SEARCH & EMPLOYMENT:
 - Up to one year after training is complete, job search and employment assistance is available.



Responsive to dynamic needs of business...

- Occupational Advisory Committees

- Comprised of employers and subject matter experts from business and industry.
- Meet or connect regularly to conduct review of training content and provide feedback to ensure what students are learning is what they need in the workplace.
- Visit classrooms to make presentations to students and to recruit students for employment.
- Contribute money and equipment via education tax credits to support the resource needs of the programs.

AVTEC Occupational Programs

- Culinary Arts*
- Construction Technology*
- Diesel / Heavy Equipment Technology
- Industrial Welding



AVTEC Occupational Programs

- Information Technology Networking*
- Business & Office Technology*
- Industrial Electricity*
- Plumbing & Heating
- Refrigeration*



Alaska Maritime Training Center*



- 40 USCG and IMO Approved Courses
- Vessel Maintenance
- License Preparation for Advanced licenses.

Youth Outreach / Pre-apprentice

The Young Mariner Program (High School)

Introduction to Navigational Skills
Young Fisherman's program

Licenses / Certifications

Deck Able Seafarer
Deck & Engine
Able Bodied Seaman, Mate and Master
Qualified Member of the Engine Department

Advanced Training

Advanced Maritime Officer Training
Marine Engineering
Company and Vessel Specific Training





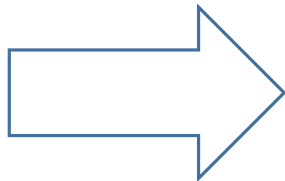
CAREER PATHWAYS

Maritime Career Pathway...

HIGH SCHOOL COURSE/CREDIT

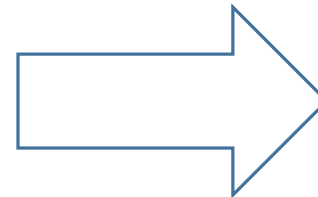
Introduction to
Nautical Skills is a
high school course
taught via distance
technology or
on-site in school
district

Senior Year to
Career



ABLE SEAMAN BASIC TRAINING continues for students at AVTEC

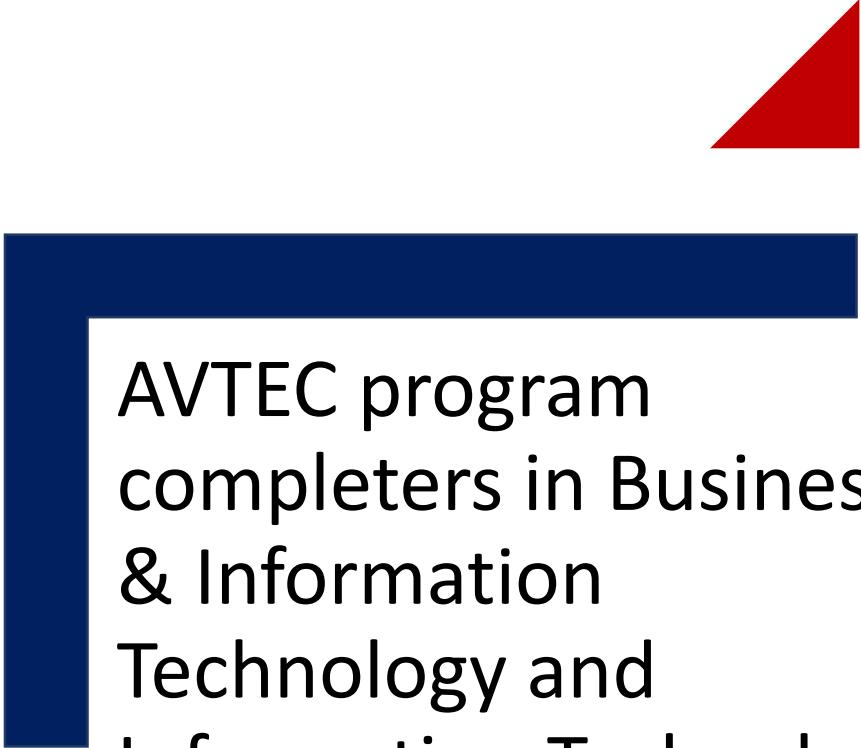
Basic Training
sponsored by
Perkins
Postsecondary grant
for students and
teacher professional
development



Employed, internship
apprenticeship with tug and
barge, tour boat, or other
maritime employer



Non credit to credit pathways...



AVTEC program
completers in Business
& Information
Technology and
Information Technology





University of Alaska
Fairbanks:

Business & IT
students can
purchase credits
from UAF CTC



Non credit to credit pathways...



AVTEC program
completers in Maritime
training



University of Alaska
Southeast:

Mariners with
licenses can
purchase credits
equivalent to license



PANDEMIC RESPONSE



COVID-19 response priorities

- #1 Provide safe training environment & protect health and safety of staff and students
- #2 Given students what they came for...workforce training



Challenges

- Budget – due to reduced enrollments for health and safety of students
- Uncertainty of what next during the pandemic
- Bridging the digital divide for staff and students





STUDENT SUCCESS



Student Success...

- FIVE YEAR AVERAGE COMPLETION RATE OVER 90%
 - WITH LITTLE OR NO STUDENT LOAN DEBT
- FIVE YEAR EMPLOYMENT RATE AT NEARLY 90%
 - FUTURE EARNING POTENTIAL OVER 60% MORE THAN BEFORE COMPLETING TRAINING
- RETURN ON INVESTMENT
 - AVTEC RANKED IN TOP 10% FOR ROI* BY GEORGETOWN UNIVERSITY



ALASKA VOCATIONAL
TECHNICAL CENTER

QUESTIONS?

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